

What is claimed is:

1. A kind of capsule pattern endoscope comprising intelligent capsule and image receiving device with the intelligent capsule comprising outer shell & image information acquiring device installed on the outer shell, image signal processing and transmitting device, light source, power source and the image information acquiring device comprising image sensor and lens optical system, wherein the intelligent capsule has PCB structure on its outer shell.
2. The capsule pattern endoscope of claim 1, wherein component or component set inside the intelligent device are directly welded onto the PCB.
3. The capsule pattern endoscope of claim 1, wherein said image information-acquiring device includes image compression processor and the image signal-transmitting device includes microwave transceiver that sends compression image data and controls image data.
4. The capsule pattern endoscope of claim 1, wherein outer shell bracket that can support the PCB is provided.
5. The capsule pattern endoscope of claim 1, 2 or 4, wherein said PCB is soft PCB.
6. The capsule pattern endoscope of claim 1 or 4, wherein said PCB is PCM in the shape of drum and component or component are welded onto the outer surface of the drum-shaped PCB.
7. The capsule pattern endoscope of claim 2, wherein said component or component set includes controller, image compression processor, radio transceiving signal processing chip and antenna component dominated by image sensor and CPU.
8. The capsule pattern endoscope of claim 3, wherein said image sensor or image compression processor includes image-cutting device.
9. The capsule pattern endoscope of claim 4, wherein said PCB is drum-shaped PCB and the component or component set is welded onto the bracket of the outer shell.
10. The capsule pattern endoscope of claim 5, wherein said component or component sets are welded onto the bracket of the outer shell.
11. The capsule pattern endoscope of under claim 1, 3, 5 or 6, wherein antenna components are provided on the rear cover of said outer shell.

12. The capsule pattern endoscope of claim 5, wherein protective layer is provided for said component or component sets professedly.

13. The capsule pattern endoscope of claim 6, wherein protective layer is provided for said component or component sets professedly.

14. The capsule pattern endoscope of claim 8, wherein said image sensor U2 uses CMOS image sensor, image compression processor U1 uses CPU, DSP or ASIC processor and the microwave transceiver JP 1 uses microwave communication chip.

15. The capsule pattern endoscope of claim 1 or 14, wherein the unit members in the outer shell are provided in an integrated manner wholly or partly.

16. The capsule pattern endoscope of claim 3, 14 or 15, wherein said image compression processor includes image compression rate adjusting device.

17. The capsule pattern endoscope of claim 16, wherein the image-receiving device is provided with external controller, the intelligent capsule is provided with corresponding controller. The external controller sends microwave control commands to the intelligent capsule so that the controller intelligent capsule completes the actions.

18. The capsule pattern endoscope of claim 17, wherein the carrier capsule is provided inside the intelligent capsule.